

REMARKS

A. Specification Objection

In the Office Action, the Examiner pointed out that the application's specification recites "Serial No. 09/488,844 filed January 21, 2000, now US Patent No. 6,361,531" twice and each recitation is followed by a different title of the patent. The second recitation is followed by the correct title of the 6,361,531 patent. The error of the first recitation has now been corrected to recite "Serial No. 09/487,705 filed January 19, 2000, now abandoned and entitled Methods of Skin Rejuvenation Using High Intensity Focused Ultrasound To Form An Ablated Tissue Area Containing A Plurality Of Lesions."

B. Double Patenting Rejection

In the Office Action, claims 1-13 and 16-27 were rejected on the following bases:

- (1) Claims 1-3, 9-12 and 21-26 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,692,450;
- (2) Claims 4, 6-8, 13, 16, 18-20 and 27 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,692,450 in view of Castel (US 5,413,550); and
- (3) Claims 5 and 17 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,692,450 in view of Weng et al. (US 6,626,855).

In response, a terminal disclaimer has been filed. Therefore, the rejection of claims 1-13 and 16-27 under the judicially created doctrine of obviousness-type double patenting should now be overcome.

C. Claim Objections

In the Office Action, claim 27, an apparatus claim, was objected to because it depends from claim 21, a method claim. For a claim to depend from another claim, both must belong to the same statutory class of invention.

In response, claim 27 has been amended to recite it is a method claim.

D. Claim Rejections Under 35 U.S.C. §103

1. In the Office Action, claims 1-3, 9-12, 14 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,562,900 ("Anderson et al.") in view of U.S. Pat. No. 5,448,994 ("Iinuma"). This rejection is traversed based on the following remarks.

Anderson et al. disclose a lightweight system for use in a system employing a multiplicity of focused acoustic transducers, column 1, lines 6-8. Each transducer has its own Fresnel lens, column 1, lines 38-39. The Fresnel lenses 12 are used to focus the energy from all of the acoustic transducers 14 toward a single focal point or target, see Fig. 2 and column 2, lines 3-4.

Iinuma discloses a system including a concave transducer element divided into a plurality of partial transducers a1-a12 and b1-b8, see Fig. 7, and a driving control means for driving/controlling the plurality of partial transducers to selectively generate high-energy ultrasonic waves for medical treatment and ultrasonic waves for non-treatment, see column 3, lines 31-35 and column 5, lines 46-48. The plurality of partial transducers are arranged to form a single focal point, see Figs. 8 and 11, and column 2, lines 33-35. Iinuma discloses a stone disintegration apparatus wherein the concave transducer 10 is driven by a pulser 22 to emit a strong ultrasonic pulse (shock wave) or a weak ultrasonic pulse, see column 5, lines 46-48. The pulsers 22, constituting the driving system 20, drive the respective partial transducers (a1-b8). The controller 64 supplies signals for controlling outputs from the pulsers 22, thereby controlling the output pulses from the transducer 10, wherein the output pulses are a strong output pulse, an intermediate output pulse and a weak output pulse, see column 6, lines 21-37. Iinuma further discloses a hyperthermia apparatus wherein the pulsers 22, constituting the driving system in the stone disintegration apparatus, are replaced by continuous wave generation drivers 24. The hyperthermia apparatus is designed to radiate a continuous wave or a burst wave, see column 10, lines 62-68.

Anderson et al. and Iinuma teach the focusing of a plurality of transducer elements to a single focal point. Both Anderson et al. and Iinuma fail to teach that each transducer element is focused to individually separate and distinct focal points as now required in amended claims 1 and 9. A §103 rejection based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference is not proper and the prima facie case of obviousness cannot be properly made. In short there would be no motivation for engaging in the modification or change.

Together Anderson et al. and Iinuma do not provide any motivation, suggestion or teachings for having "...an ultrasound emitting member having a plurality of individual ultrasound emitting elements spaced from one another, the ultrasound emitting elements being actuatable to emit ultrasound energy a predetermined distance outwardly from an active surface whereby the ultrasound energy is focused within tissue of the patient at separate and distinct locations for each individual ultrasound emitting element to form a lesion..." as now required in amended claims 1-8. Therefore, the rejection of claims 1-3 as being unpatentable over Anderson et al. in view of Iinuma should now be overcome.

In addition, Anderson et al. and Iinuma do not provide any motivation, suggestion or teachings for having an "...ultrasound emitting member comprising an active face adapted for positioning adjacent an area of tissue, the active face carrying one or more rows of spaced apart ultrasound transducer elements, the ultrasound transducer elements selectively, independently actuatable to emit focused ultrasound energy focused a predetermined distance from the active face and focused at separate and distinct locations for each individual ultrasound transducer element..." as now required in amended claims 9-20. Therefore, the rejection of claims 9-12, 14 and 15 as being unpatentable over Anderson et al. in view of Iinuma should now be overcome.

2. In the Office Action, claims 4, 6-8, 13, 16 and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,562,900 ("Anderson et al.") in view of U.S. Pat. No. 5,448,994 ("Iinuma") as applied to claims 1 and 9 above, and further in view of U.S. Pat. No. 5,413,550 ("Castel"). This rejection is traversed based on the following remarks.

Like Anderson et al. and Iinuma, Castel also does not provide any motivation, suggestion or teachings for having "...an ultrasound emitting member having a plurality of individual ultrasound emitting elements spaced from one another, the ultrasound emitting elements being actuatable to emit ultrasound energy a predetermined distance outwardly from an active surface whereby the ultrasound energy is focused within tissue of the patient at separate and distinct locations for each individual ultrasound emitting element to form a lesion..." as now required in amended claims 1-8. Therefore, the rejection of claims 4 and 6-8 as being unpatentable over Anderson et al. in view of Iinuma and further in view of Castel should now be overcome.

In addition, Castel also does not provide any motivation, suggestion or teachings for having an "...ultrasound emitting member comprising an active face adapted for positioning

adjacent an area of tissue, the active face carrying one or more rows of spaced apart ultrasound transducer elements, the ultrasound transducer elements selectively, independently actuatable to emit focused ultrasound energy focused a predetermined distance from the active face and focused at separate and distinct locations for each individual ultrasound transducer element...” as now required in amended claims 9-20. Therefore, the rejection of claims 13, 16 and 18-20 as being unpatentable over Anderson et al. in view of Iinuma and further in view of Castel should now be overcome.

3. In the Office Action, claims 5 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,562,900 (“Anderson et al.”) in view of U.S. Pat. No. 5,448,994 (“Iinuma”) as applied to claims 1 and 9 above, and further in view of U.S. Pat. No. 6,626,855 (“Weng et al.”). This rejection is traversed based on the following remarks.

Like Anderson et al. and Iinuma, Weng also does not provide any motivation, suggestion or teachings for having “...an ultrasound emitting member having a plurality of individual ultrasound emitting elements spaced from one another, the ultrasound emitting elements being actuatable to emit ultrasound energy a predetermined distance outwardly from an active surface whereby the ultrasound energy is focused within tissue of the patient at separate and distinct locations for each individual ultrasound emitting element to form a lesion...” as now required in amended claims 1-8. Therefore, the rejection of claim 5 as being unpatentable over Anderson et al. in view of Iinuma and further in view of Weng should now be overcome.

In addition, Weng also does not provide any motivation, suggestion or teachings for having an “...ultrasound emitting member comprising an active face adapted for positioning adjacent an area of tissue, the active face carrying one or more rows of spaced apart ultrasound transducer elements, the ultrasound transducer elements selectively, independently actuatable to emit focused ultrasound energy focused a predetermined distance from the active face and focused at separate and distinct locations for each individual ultrasound transducer element...” as now required in amended claims 9-20. Therefore, the rejection of claim 17 as being unpatentable over Anderson et al. in view of Iinuma and further in view of Weng should now be overcome.

4. In the Office Action, claims 21-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,562,900 ("Anderson et al.") in view of U.S. Pat. No. 5,413,550 ("Castel"). This rejection is traversed based on the following remarks.

Anderson et al. and Castel do not provide any motivation, suggestion or teachings for "...focusing the ultrasound energy with the selected one or more of the ultrasound emitting elements so that the ultrasound energy is focused a predetermined distance from the active face and focused at separate and distinct locations for each individual ultrasound emitting element..." as now required in amended claims 21-27. Therefore, the rejection of claims 21-27 as being unpatentable over Anderson et al. in view of Castel should now be overcome.

A terminal disclaimer accompanies this amendment. Please charge the fee for submission of the terminal disclaimer to Deposit Account No. 13-2546.

Support for this amendment is clearly found in the application as originally filed. No new matter is presented.

After amending and canceling claims as set forth above, claims 1-27 remain pending in the application and are now believed to be in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.


Applicant respectfully petitions the Commissioner for Patents to extend the time for response to the Office Action dated July 28, 2004 for two (2) month from October 28, 2004 to December 28, 2004. Please charge the fee provided in:

X 37 C.F.R. 1.17(a)(2) Extension for response within second month
to Deposit Account No. 13-2546.

If the Examiner comes to believe that a telephone conversation may be useful in addressing any remaining open issues in this case, the Examiner is urged to contact the undersigned agent at 763-391-9867.

Please charge any additional required fees or credit any overpayment to Deposit Account
No. 13-2546.

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